

INTRODUCTION

Thank you very much for purchasing 500 Series machine.
This instruction manual describes daily routine maintenance and safety precautions to keep the machine in the best possible conditions.
Please study this manual very carefully before operating the machine.

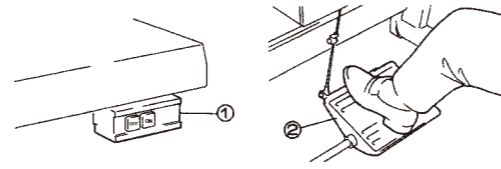
CAUTION
OBSERVE THESE SAFETY PRECAUTIONS

Though Sewing Machine takes the utmost care to produce safe sewing machines and devices, operators should follow these basic safety rules.

- To prevent accidents, do not remove safety devices or parts while operating the machine.
- Do not leave tools or other unnecessary objects on the machine table while operating the machine.
- Before maintenance, adjusting, cleaning, threading or replacing the needle, and to

prevent accidents, be sure the power is turned off. Check that the machine will not operate when the pedal is pressed.

Note
In case a clutch type motor is used, it will keep on rotating by inertia after turning off power supply. If the machine pedal is stepped on, inadvertently, it is dangerous because the machine will move unexpectedly. Keep on stepping on the pedal until the machine comes to a stop after turning off power supply.

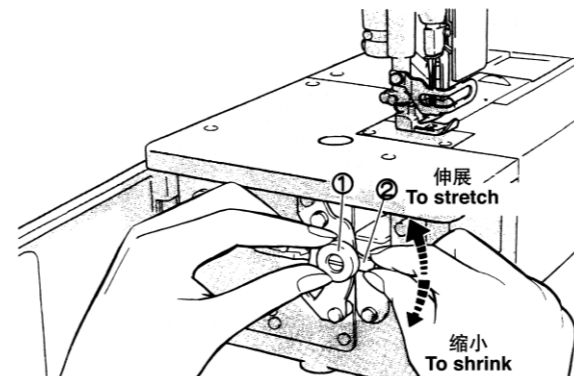


- Turn the power off before leaving the machine table.
- In the event of a power failure, be sure to turn the machine off.
- Check that the machine is securely grounded.

试缝 TEST SEWING

差动比的调节
Diff. feed ratio adjustment

差动比是通过松开螺帽①后，把调节杆②上下移动来进行调节的。调节后请拧紧螺帽①。Loosen nut (1) and move the lever up (2) and down to obtain the correct differential feed ratio, then tighten nut (1).



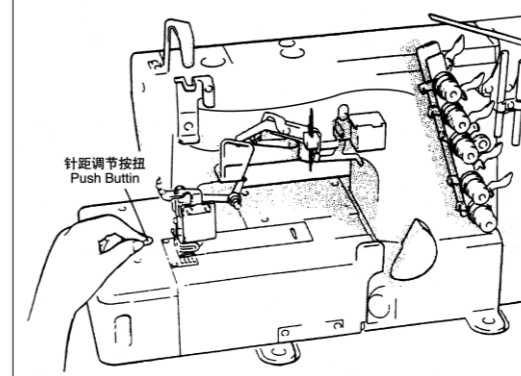
试缝 TEST SEWING

针脚长度的调节
Stitch length adjustment

①摁住针距调节按钮，旋转手轮，针距调节按钮会旋进更深。②这时边摁住针距调节按钮，边转动手轮，使校准标记对准所希望的数值。

注：针脚长度的调节必须在调节差动比之后进行。
While pressing the push button, turn the handwheel to seek the position at which the push button goes further into the depth. Then, keeping the push button pressed, turn the handwheel and set the desired scale to the aligning mark.

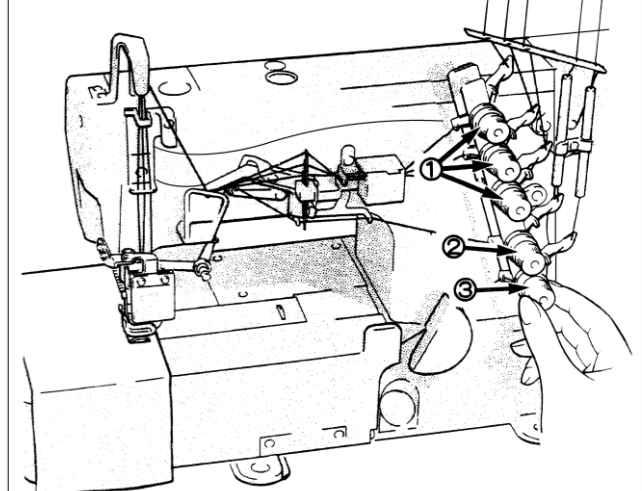
Note: Stitch length adjustment must only be made after the differential feed ratio has been changed.



试缝 TEST SEWING

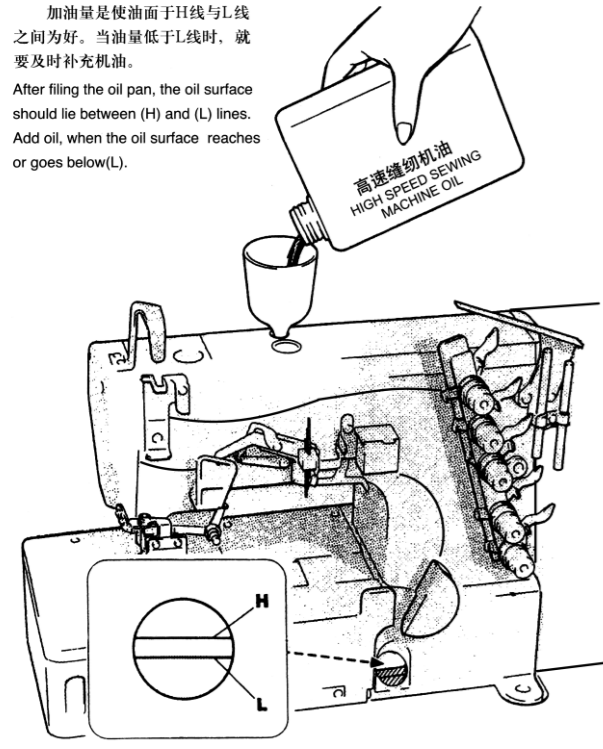
线状态的调节
Thread tension

线张力状态的调节，请用针线状态螺帽①、上弯针线状态螺帽②、弯针线状态调节螺帽③来进行调节。
Mack tension adjustments with the needle thread knob (1), top cover thread knob (2), and looper thread knob (3).



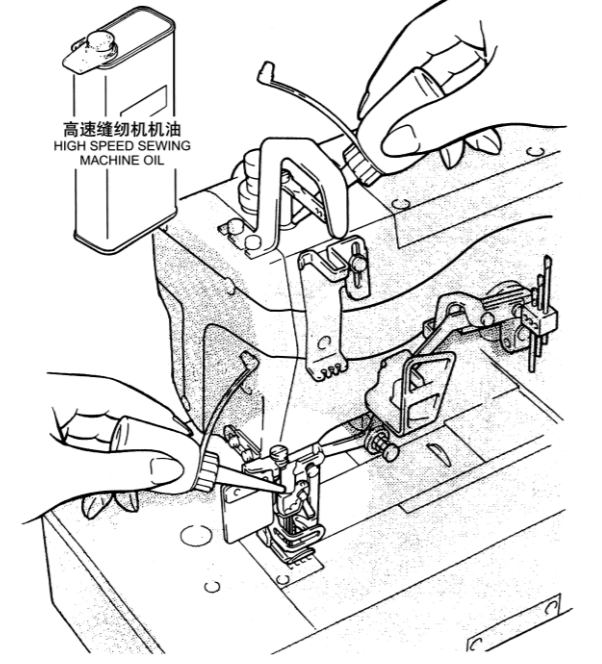
在使用之前 BEFORE OPERATING
供油 Lubrication

加油量是使油面于H线与L线之间为好。当油量低于L线时，就要及时补充机油。
After filling the oil pan, the oil surface should lie between (H) and (L) lines. Add oil, when the oil surface reaches or goes below(L).



在使用之前 BEFORE OPERATING
手动给油 Manual lubrication

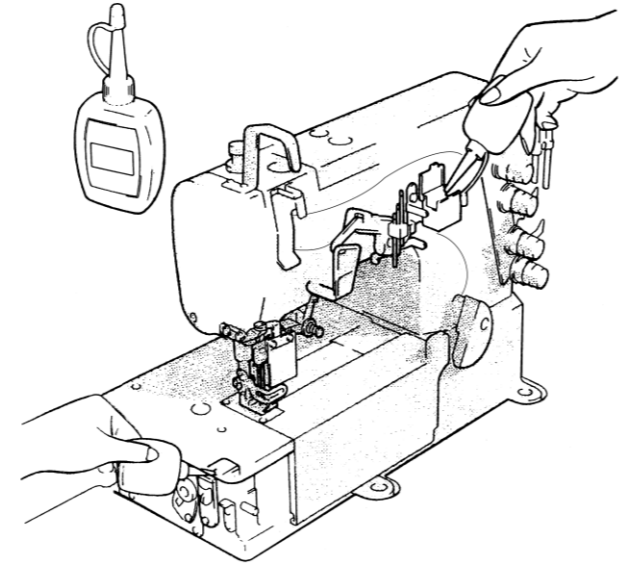
手动给油是在缝制机最初使用时，或相当一段时间没使用时，请供给2-3滴油。
Apply 2 or 3 drops of oil by hand when the machine is used for the first time or has been left unused for some time.



在使用之前 BEFORE OPERATING
给HR装置供油 Filling the HR device with silicon oil

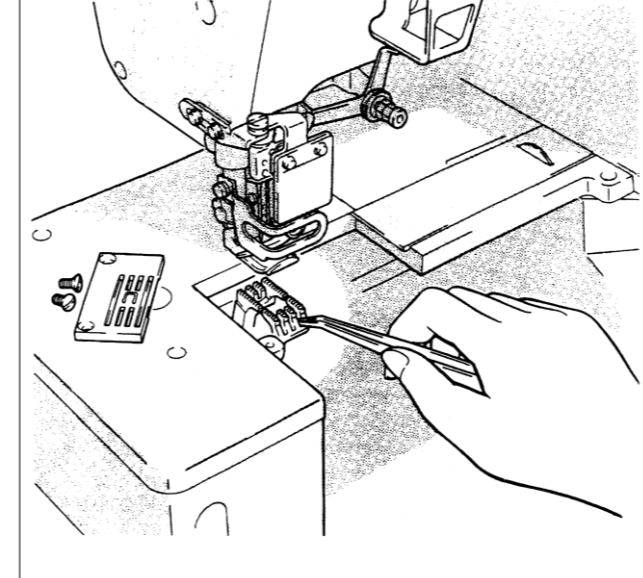
为了防止布纤维或线被切断，请尽早给HR装置供油。
Fill the device with oil before it is too low in order to prevent needle thread breakage and fabric damage.

注：关于购买硅油，请向缝制机代销售或与公司营业所联系。
Note: Use recommended silicon oil. (UNION CARBIDE CORPORATION) UCCL-45(350)



使用中的保养 MAINTENANCE DURING USE
缝纫机的清扫 Cleaning the machine

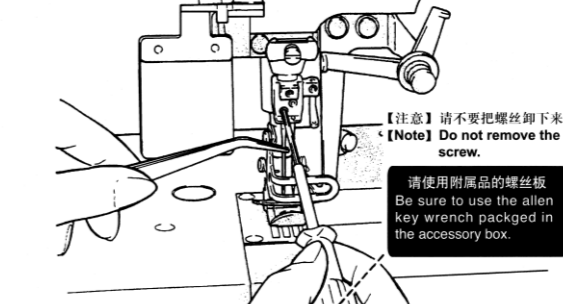
缝纫机的清扫，以针板槽及送布牙周围为主。Mainly the slots of the needle plate and the feed rows should be cleaned.



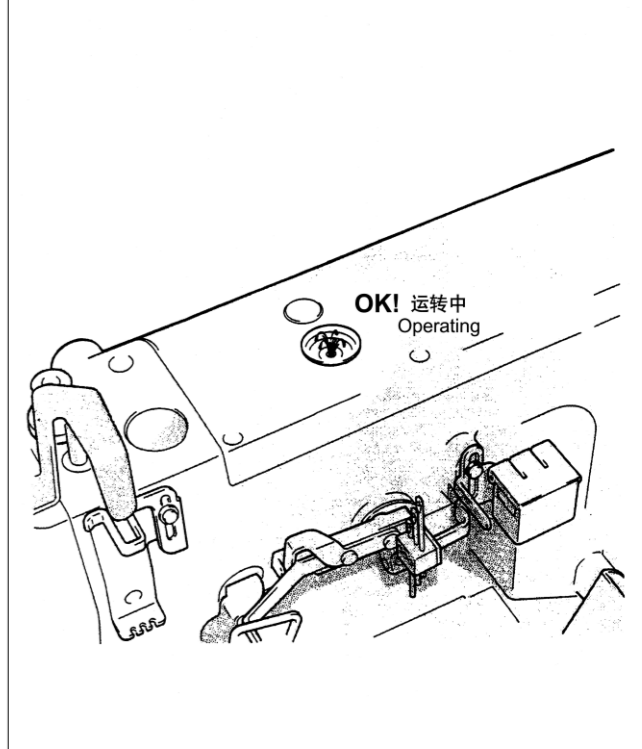
使用中的保养 MAINTENANCE DURING USE
换针 Replacing the needle

OK! NO! OK! NO!
准确辨认针的前后，请将针凹向着后方，即背向操作者进行安装。
Check the needle carefully to see that the scarf is turned to the rear of the machine. *Insert the needle to the proper depth, and fasten securely.

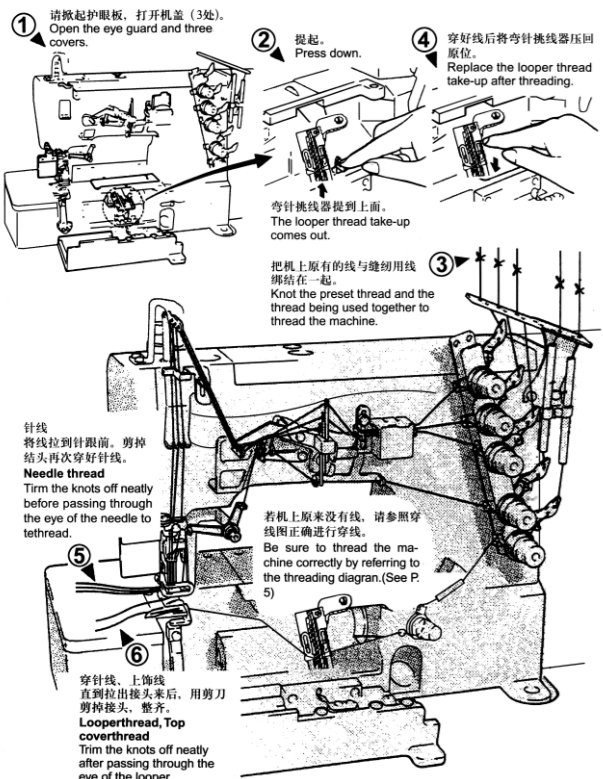
品牌	针的尺寸 NEEDLE SIZE	
	2针 2-needle	3针 3-needle
风琴牌 Organ	UY128GAS	
蓝梅牌 Schmetz	UY128GAS	#9
		#10



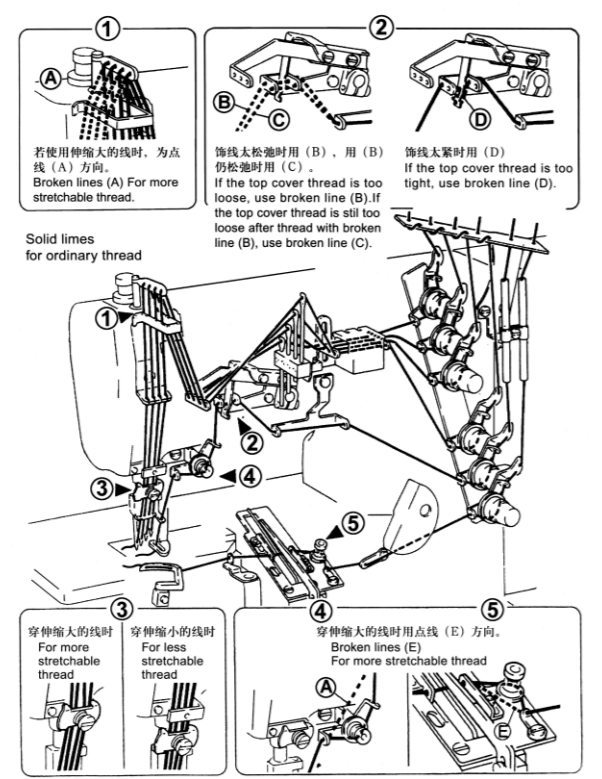
使用中的保养 MAINTENANCE DURING USE
检查机油的循环 Checking the oil circulation



在使用之前 BEFORE OPERATING
穿线的方法 Threading

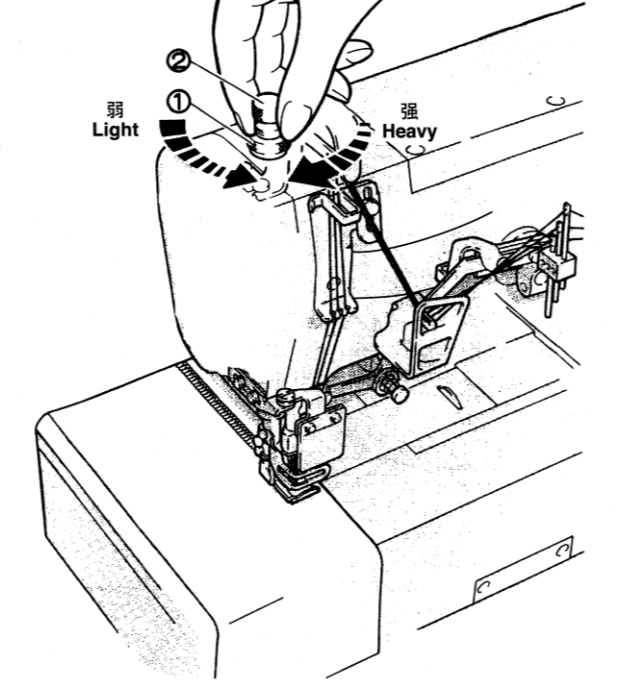


在使用之前 BEFORE OPERATING
穿线图(2针、3针、4针) Threading diagram (2,3-needle)



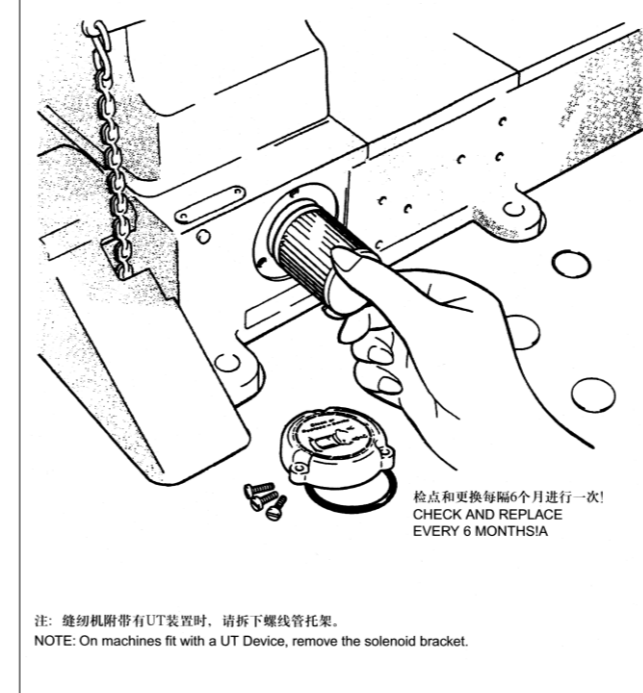
在使用之前 BEFORE OPERATING
压脚压力的调节 Presser foot pressure

压脚压力的调节是松开螺帽①和旋转螺帽②来进行的。在能取得平稳针脚的范围内，尽量调得松一些为好。
Loosen adjusting (1) nut and turn adjusting screw (2) to adjust the presser foot pressure. It should be as light as possible, yet be sufficient to obtain the proper stitch formation.



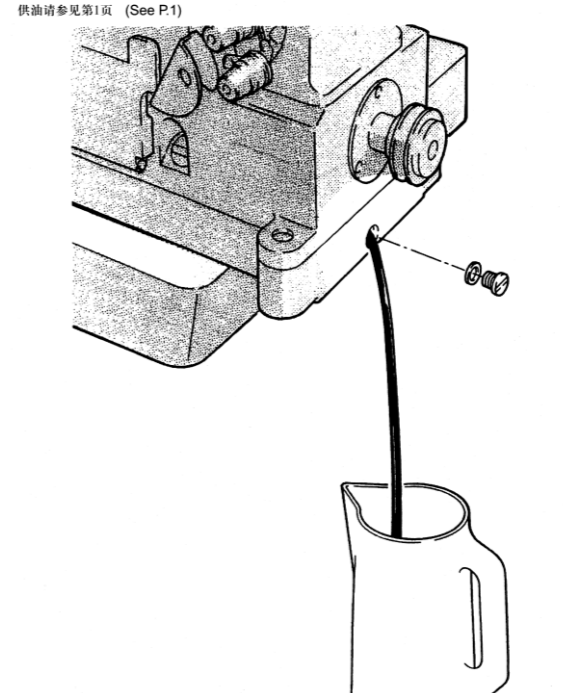
使用中的保养 MAINTENANCE DURING USE
油过滤器的检点与更换 Checking and replacing the oil filter

机油过滤器，请于每6个月拆下来检点或更换一次。
Check and replace the oil filter every six months.



使用中的保养 MAINTENANCE DURING USE
换机油 Replacing the oil

机油的更换，请在使用开始1个月后更换一次，然后，每6个月更换一次。
Replace the oil one month after the first use and every six months thereafter.



1. 套筒部件/Bushing assemblies

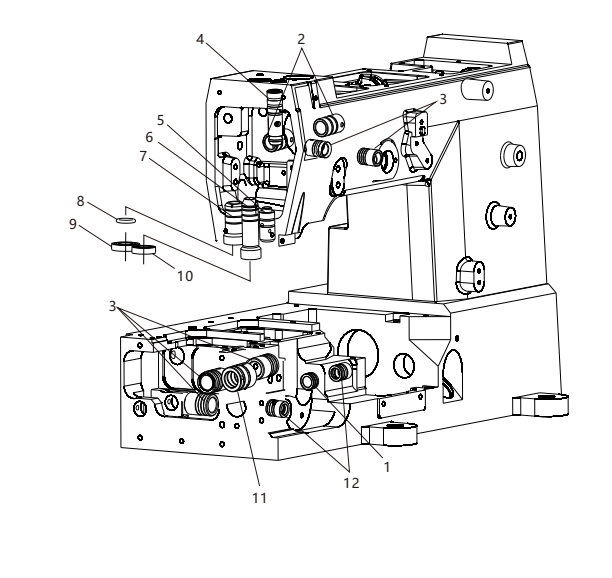


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00012 衬针轴套, 2 13.000.00012 衬针轴套, etc.

2. 车架部件/Frame assemblies

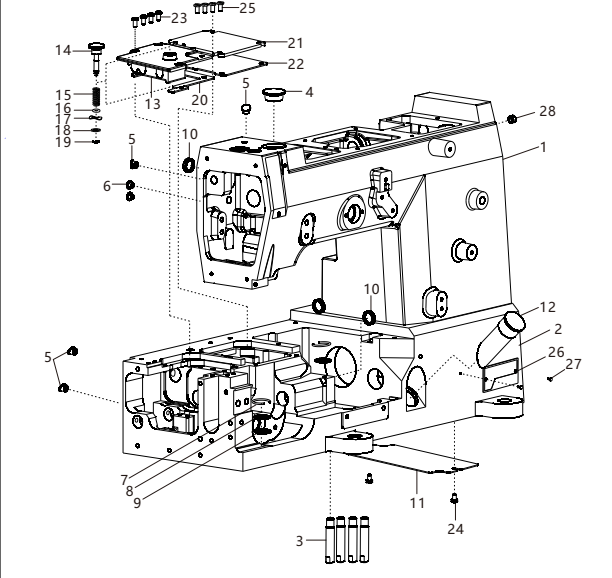


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 19.01.03.00018 机壳, 2 13.000.00017 机器罩, etc.

3. 罩壳部件/Cover assemblies

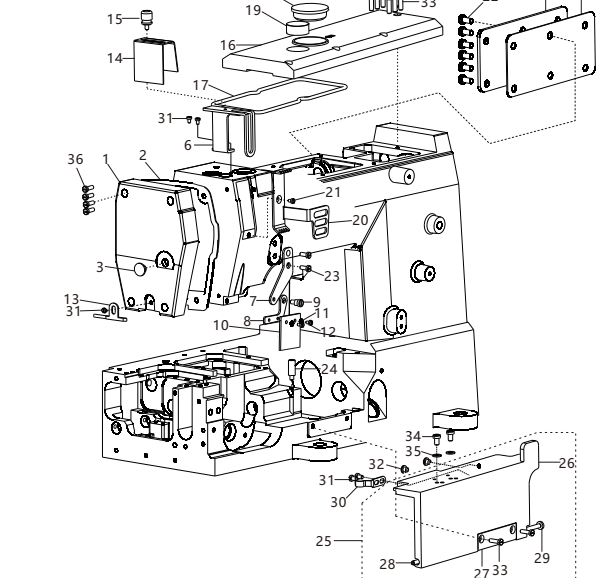


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 20.02.03.00092 面罩, 2 13.000.00035 面罩密封垫, etc.

4. 缝台部件/Cloth plate assemblies

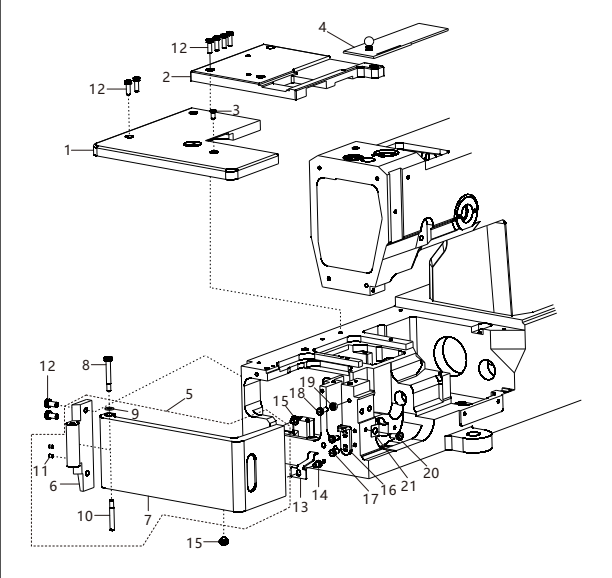


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 20.02.03.00047 左缝台盖, 2 13.000.00048 右缝台盖, etc.

9. 弯针部件/Looper assemblies

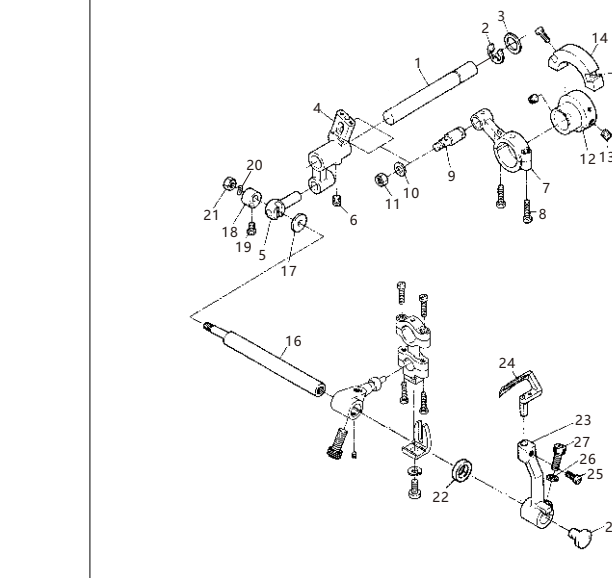


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00092 弯针调节驱动轴, 2 17.05.00022 开针器, etc.

10. 牙架部件/Feed dog holder assemblies

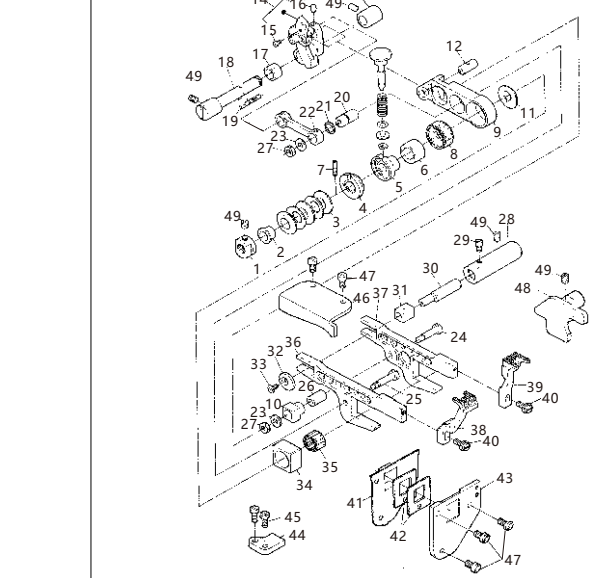


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00100 凸轮螺母, 2 13.000.00121 导针套, etc.

10. 牙架部件/Feed dog holder assemblies

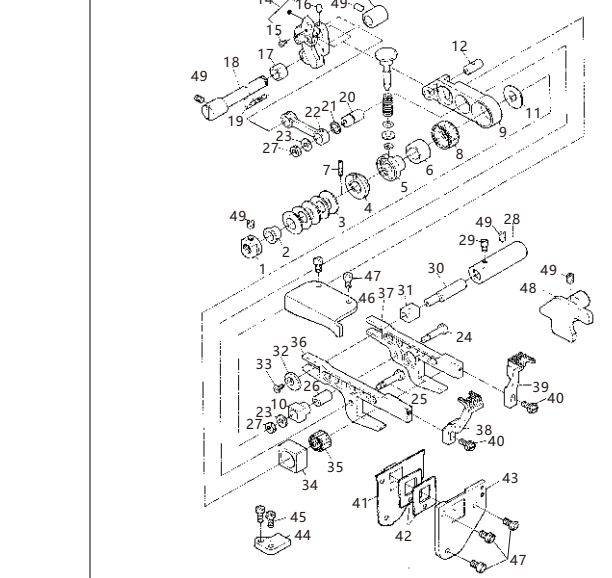


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00129 差动牙架, 2 13.000.00130 红色垫圈, etc.

11. 差动部件/Differential assemblies

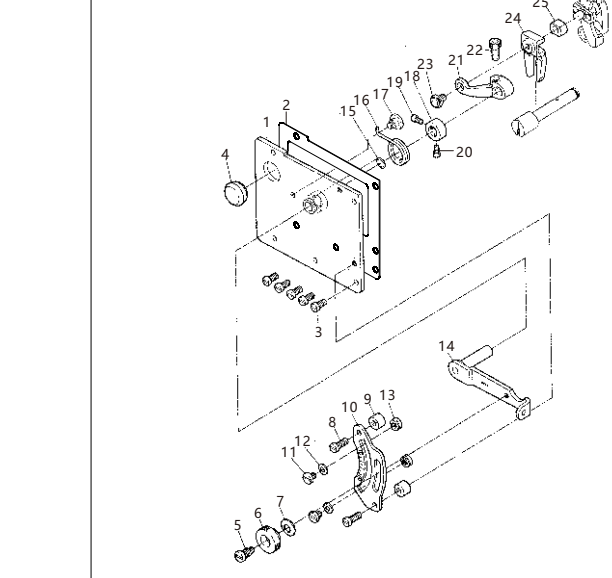


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00200 凸轮螺母, 2 17.02.00016 螺钉, etc.

16. 下过线部件/LOWER THWER TENSION COMPONENTS

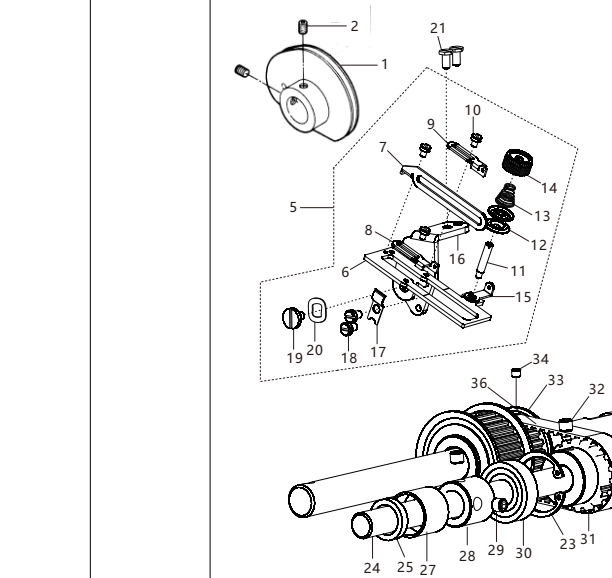


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00200 凸轮螺母, 2 17.02.00016 螺钉, etc.

17. 供油部件/LUBRICATION MECHISM COMPONENTS

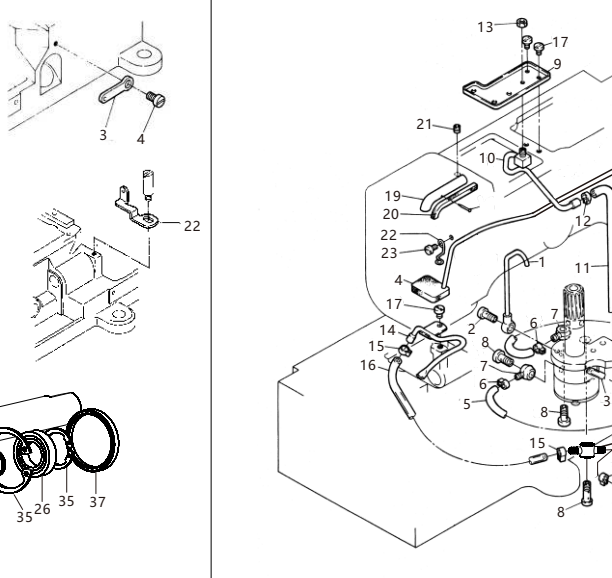


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00202 油管, 2 17.02.00016 螺钉, etc.

18. 油泵部件/PUMP COMPONENTS

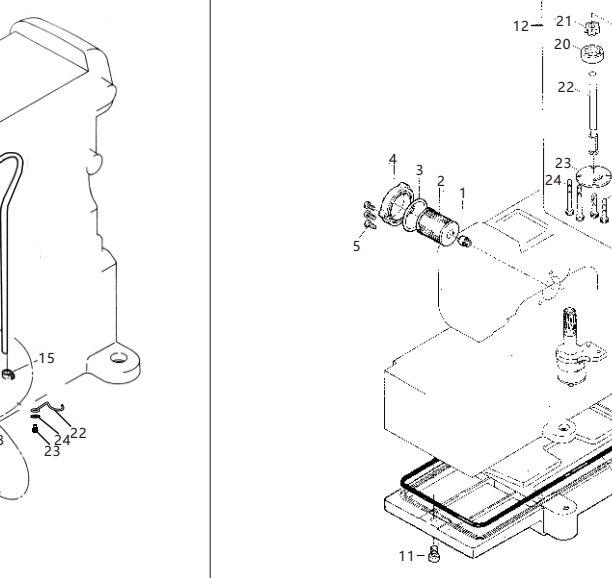


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00214 滤芯盖, 2 13.000.00215 滤芯盖, etc.

19. 机针冷却器部件/NEEDLE COOLING MECHANISM COMPONENTS

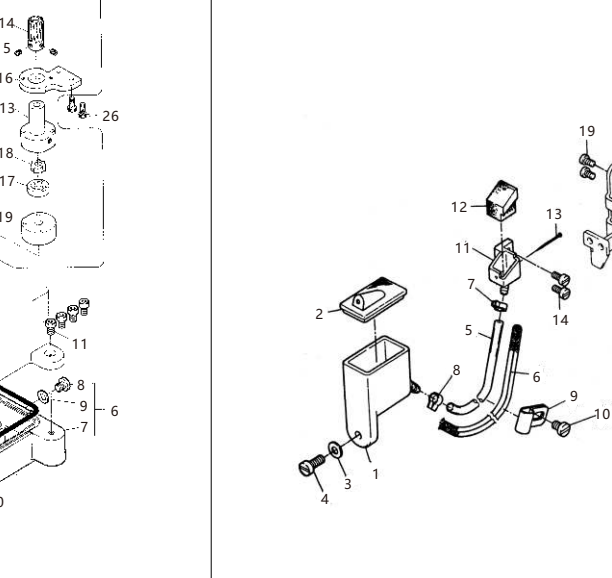


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00221 硅油盖, 2 13.000.00222 硅油盖, etc.

5. 下轴部件/Hook shaft assemblies

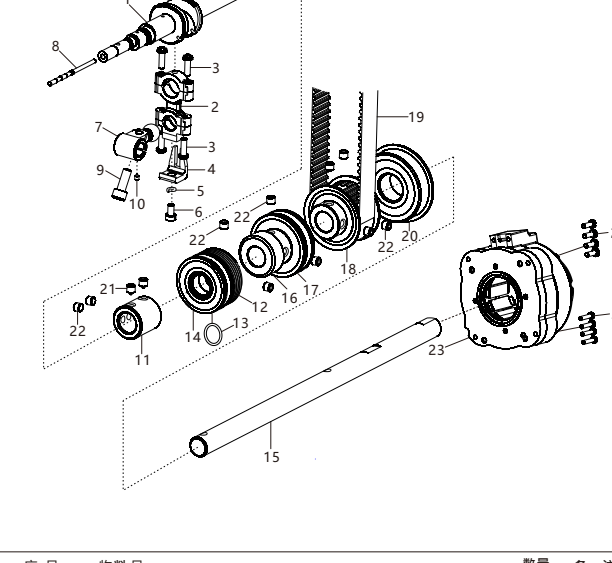


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00061-12 下轴, 2 13.000.00061-1 连杆轴销, etc.

6. 上轴部件/Main shaft assemblies

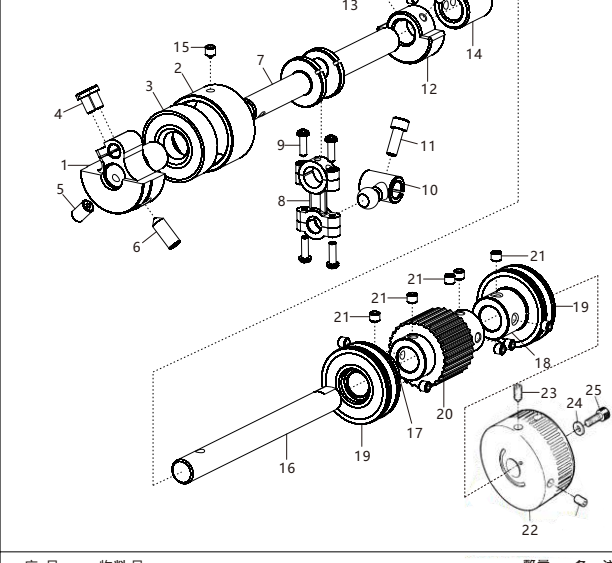


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00062 针杆曲柄, 2 13.000.00063 轴套, etc.

7. 针杆部件/Needle bar assemblies

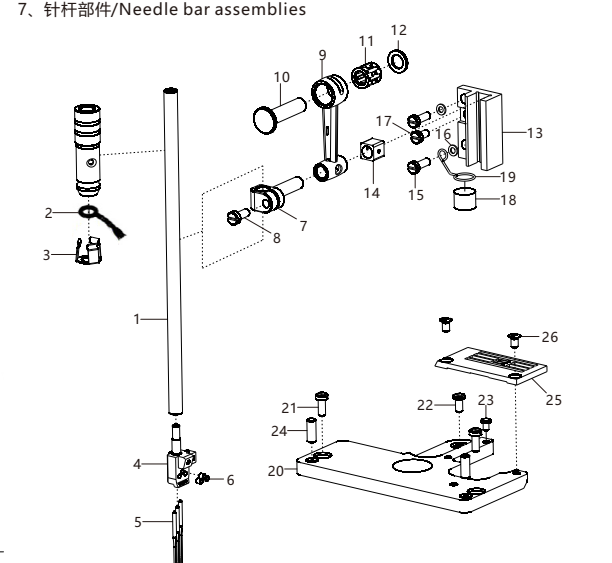


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00070 针杆, 2 16.05.00013 油毡, etc.

8. 护针部件/Needle guard assemblies

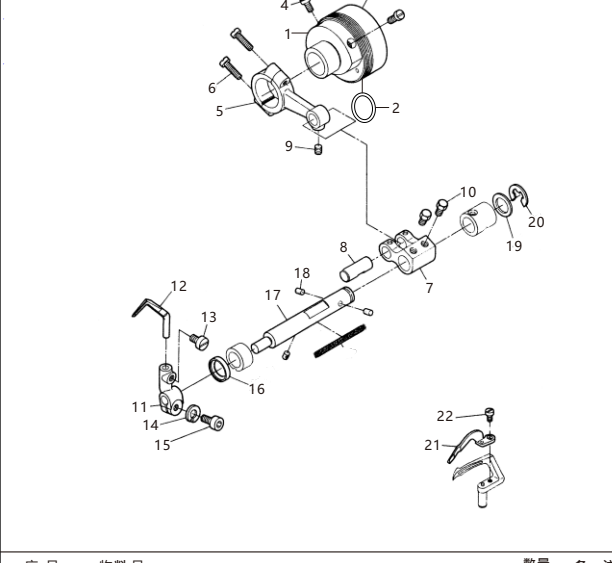


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00081-9 下轴前护套, 2 13.000.00085 O型圈, etc.

12. 抬压脚部件/PRESSER FOOT LIFTER COMPONENTS

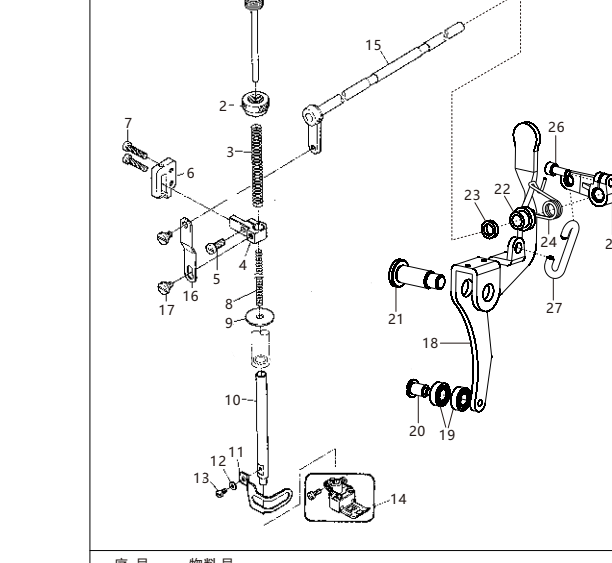


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00151 调压螺钉, 2 13.000.00152 调压螺母, etc.

13. 绷针部件/STRETCH NEEDLE COMPONENTS

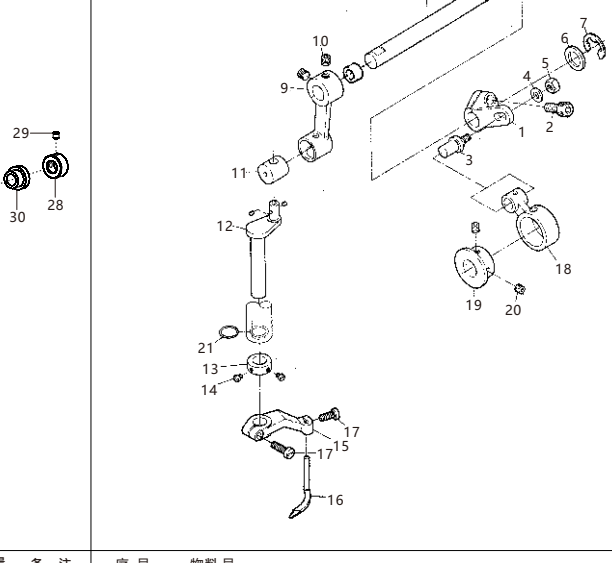


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00160 调节摆动压杆, 2 13.000.00161 调节螺钉, etc.

14. 过线部件/THREAD GUIDE MECHANISM COMPONENTS

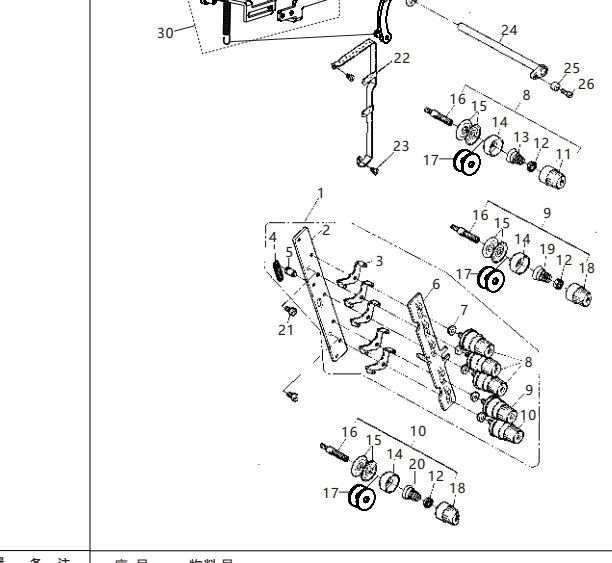


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00037 线迹调节罩, 2 17.05.00040 平垫圈, etc.

15. 过线部件/THREAD GUIDE COMPONENTS

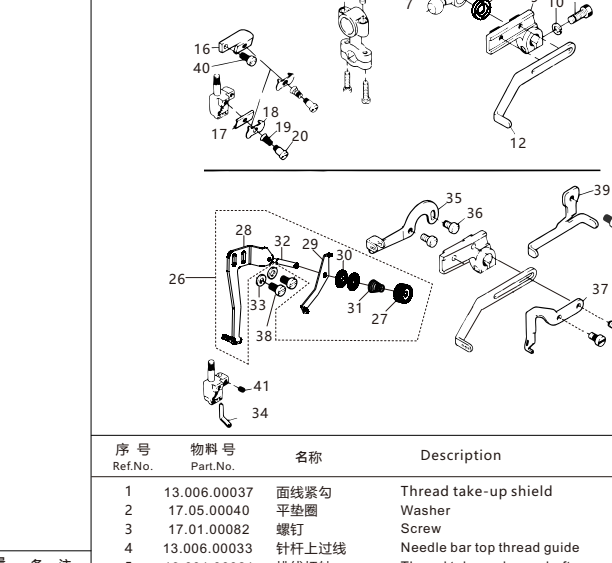


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 13.000.00037 线迹调节罩, 2 17.05.00040 平垫圈, etc.

20. 电机部件/SEMPMOTOR COMPONENTS

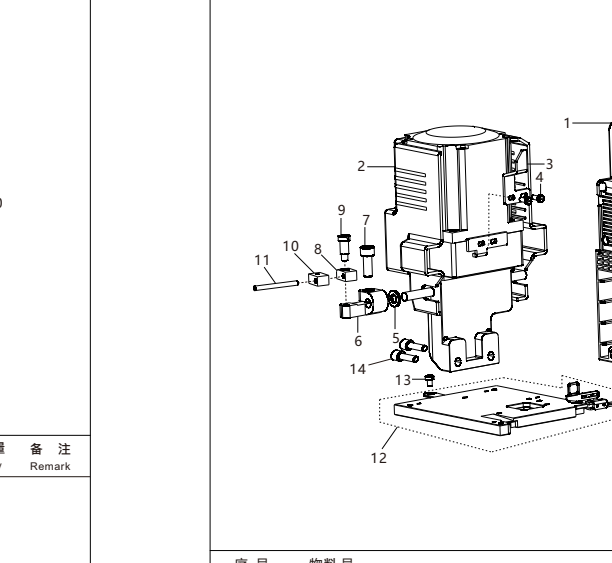


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 18.02.01.00029 电机部件, 2 18.02.06.00020-1 步进电机, etc.

21. 线架部件/THREAD STAND COMPONENTS

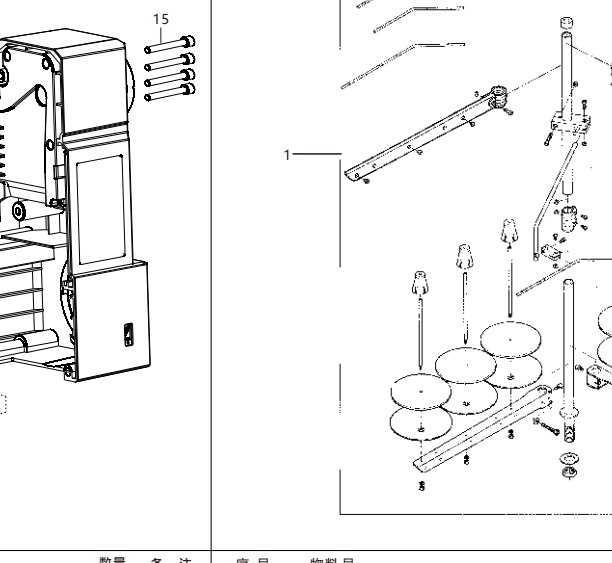


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 15.05.00016 线架部件, 2 15.05.00024 支撑板, etc.

22. 附件/ACCESSORIES PARTS

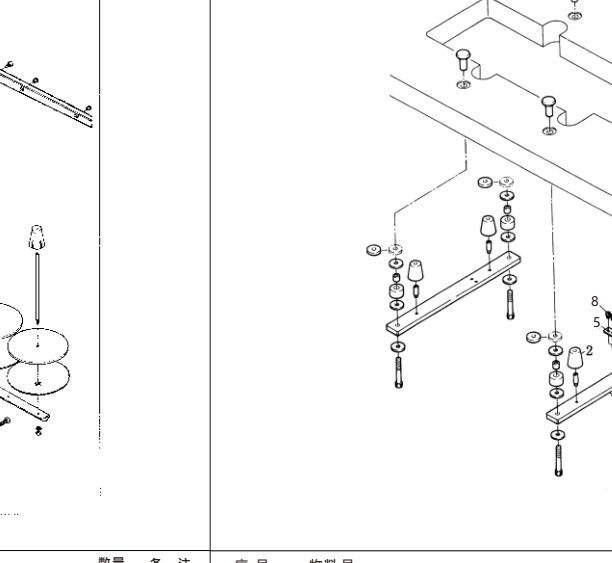


Table with 5 columns: 序号, 物料号, 名称, Description, 数量. Lists parts like 1 15.05.00024 支撑板, 2 15.05.00014 胶塞, etc.

绷缝机一体机自动剪线使用说明书

User manual of W1500 All-in one Auto-Trimmer servo Motor

前言

Foreword

欢迎使用本公司产品, 制衣行的正确投资选择!

Welcome to use our products, it is the right investment choices in garment industry!

本说明书为本公司新研发的“绷缝机自动剪线”产品做对照参考手册, 请认真阅读此手册以便更好的运用公司产品!

The User manual is for our newly developed "W1500 Auto-Trimmer servo Motor system" products Reference Manual, Please read this manual carefully, hope it can give you useful help.

阅读本说明前以下要求说明请注意
Before reading the manual, please note the following requirements

- 用户操作前必须可靠接地, 保证人身安全!
The user must be grounded before operations to ensure safety
- 非专业人士请勿拆卸控制箱
non-professionals do not disassemble the control box
- 控制箱与电机远离强磁辐射环境
The control box and motor away from the magnetic high radiation environment
- 不要在过热环境中作业
Do not work in hot environments
- 不要在过于潮湿环境中作业
Do not work in humid environments too
- 用户保证供电电压的稳定 (210V-240V)
Users to ensure stable supply voltage (210V - 240V)

安全叮嘱: Safety requirement

- 电机接通时请不要把脚放在脚踏板上
Do not put your feet on the pedals when the motor is switched on
- 本产品请专业人士安装调试
Let professionals to install and debug this product
- 严禁在通电时打开控制箱与电机盖
Do not open the control box and the motor cover when energized
- 换针, 穿线或更换线时请关闭电源
Please turn off the power when changing the needle, threading or replacing the bottom line
- 安装, 拆卸维修时请关闭电源
During installation and removal service, please turn off the power
- 翻拆控制箱时请关闭电源
Please turn off the power when turn lift sewing machine

保修服务: Warranty Policy

- 本产品自购买起免费保修 2 年, 终身维护, 保修期内除人为损坏外出现任何质量问题可免费维修
Since from the purchase of this product, we give 2-year warranty for free, Lifetime Maintenance, during the warranty period, Any quality problems the product will be free repaired, Except artificial damage.
- 未经本公司同意自行拆卸, 改装造成损坏概不给予保修。
without our consent disassemble or modify, the damaged will not give in warranty
- 但凡出现无法解决的问题可以联系本公司
Whenever find the problem can not be solved, you can contact the company

一: 显示屏常用操作介绍

Introduction of display screen common Operation

1. 显示屏介绍如下: The display screen is described as follows

显示区: Display area

操作区: Operating area

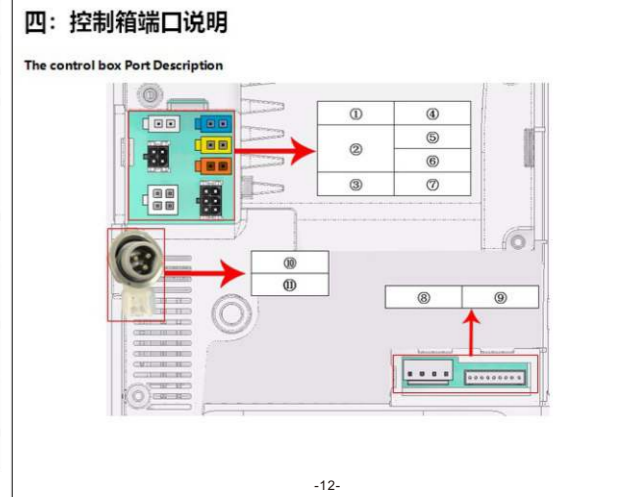
2. 功能介绍: Function introduction

序号 Serial No.	按键图标 Button Icons	功能说明 Function Description	快捷说明 Quick description
1		中途抬压脚与后半脚踏压脚功能键	长按进入压脚功能模块

Port number	Port device name for the connection	Port instruction
①	LED 机头灯座孔 head LED socket	2:1 2.5V 1GND
②	安全开关信号线端口 Safety switch signal wire port	1:2,3,4 1.5V 2:GND 3:5号 Signal 4:GND
③	步进电机相位信号线端口 Stepper motor phase signal wire port	
④	线头检测端口 Trimming function port	2:1 2:GND 1:3,4V
⑤	扫线功能端口 Sweeping thread function port	2:1 2:GND 1:3,4V
⑥	抬压脚功能端口 Lifting presser foot function port	2:1 2:GND 1:3,4V
⑦	步进电机编码器信号端口 Stepper motor encoder signal port	
⑧	主轴电机 4 线驱动端口 Principle motor 4 wire driving port	
⑨	主轴电机相位信号线端口 Principle motor phase signal wire port	
⑩	电源插头 Power plug	

Foot lifter action	release the protection time	秒 Second
P44	下脚刀手动作模式	1 0-1
P46	脚踏动作延迟启动时间 Wiper action delayed start time	40 0-2000
P47	脚踏动作时间 (全功率+维持功率) Wiper action time (full power + maintain power)	70 10-2000
P48	脚踏动作全功率时间 Wiper action time at full power time	35 10-990
P50	脚踏动作维持功率调整 Wiper action time at maintain power adjustment	80 1-100
P51	脚踏动作释放保护时间 Wiper action release the protection time	80 20-800
P55	吹风模式 Blow mode	000 0-4
P56	脚踏动作延迟启动时间 Foot lifter action delayed start time	110 0-2000
P57	脚踏动作时间 (全功率+维持功率) Foot lifter action time (full power + maintain power)	260 100-2000
P58	脚踏动作全功率时间 Foot lifter action time at full power time	160 10-990
P60	脚踏动作维持功率调整 Foot lifter action time at maintain power adjustment	20 1-90
P61	脚踏动作释放保护时间 Foot lifter release the protection time	80 20-800

Power	Step backward knife power	2
P109	Step backward knife power	2
P110	Step motor presser foot lift angle	340 0-1500
P111	Step motor presser foot lift speed	390 0-950
P112	Step motor release presser foot speed	300 0-950
P113	Step motor presser foot lift power	6
P114	Step motor release presser foot power	2



1	<p>※: 功能开启时按键将亮起, 屏幕显示后半脚踏压脚: 功能关闭时按键将变暗, 屏幕显示后半脚踏压脚: 关</p> <p>Middle foot lifter and half-back step foot lifter function key</p> <p>※: the key lights on when the function is on, the screen shows half-back step foot lifter function is on, the key lights off</p> <p>※: when the function is off, the screen shows half-back step foot lifter function is off</p>	Long press enter into Auto-foot lifter Function modules
2	<p>剪线自动抬压脚模式 (剪线后自动抬压脚)</p> <p>※: 功能开启时按键将亮起, 功能关闭时按键将变暗。</p> <p>Auto-trimmer and auto-foot lifter function(after auto-trimmer, the foot lifter automatically)</p> <p>※: when the function is open, the key lights on; when the function off, the key lights off</p>	
3	<p>剪刀功能开启和关闭键</p> <p>※: 功能开启时按键将亮起, 功能关闭时按键将变暗, 功能关闭时扫线功能关闭</p> <p>Auto-trimmer function On or Off key</p> <p>※: when the function is open, the key is on; when function off, the key is off, the function of pulling out the thread will be off when the trimmer function is</p>	Long press enter into Auto-trimmer Function modules

4	<p>扫线键 (剪线功能打开此功能自动打开)</p> <p>Thread wiper key (the function will be on when the trimmer function is on)</p> <p>※: 高度 0-5, 0 表示机头 LED 关闭, 此时按键变暗, 1-5 档机头 LED 开启, 按键变亮</p> <p>Machine head LED light On or Off key</p> <p>※: luminance value 0-5, 0 means the LED light off, the key will be off. 1-5 shows the LED light on, the key will be on</p>	Long press into Thread wiper on function module
5	<p>慢启动功能键</p> <p>※: 开启后按键将亮起, 关闭时按键将变暗。</p> <p>Slow start function key</p> <p>※: when the function is on, the key will light on, when the function off, the key will light off.</p>	
6	<p>上下脚针位切换键, 相应功能将可视化</p> <p>※: 屏幕显示停车针位: 上脚针, 表示上脚针功能开启; 屏幕显示停车针位: 下脚针, 表示下脚针功能开启;</p> <p>Up or down needle position transfer key, the related function will be Visualization</p> <p>※: the display screen shows needle stop position: upper needle position, means the upper needle stop position is open; the display screen shows needle stop position: down needle position, means the down needle stop position is open</p>	Long press enter into Auto-trimmer Function modules

8	<p>速度键 (按一下增加 50 转速)</p> <p>Speed key (increase 50 RPM when press the key for once)</p>	
9	<p>自由缝纫模式</p> <p>Free sewing mode</p> <p>※: 开启后按键将亮起, 将变暗, 多段模式关闭</p> <p>When open, the key will be light on, the will be light off, the multi-part sewing mode off</p>	Long press into Thread wiper on function module
10	<p>参数确定保存键</p> <p>Parameter determines the Save button</p> <p>※: 开启后按键将亮起, 将变暗, 自由模式关闭</p> <p>Multi-part sewing mode key</p> <p>※: the key will light on when open the function, the will be light off, the free sewing mode off</p>	Long press to lock the screen
11	<p>设置键</p> <p>可进入: 用户设置; 系统设置 (需密码); 维护设置; 错误查看; 屏幕设置; 恢复出厂设置 (需长按进入并输入密码)</p> <p>Setting key</p> <p>Press to enter: user settings; system settings (needs password); maintenance settings; error checking; screen setting; return to factory setting(need long press the key and enter the password)</p>	Long press to enter the setting of multi-part sewing, to adjust the parts number and the needle number

五: 错误代码解析: Error code analysis

显示的错误代码 Display error code	错误码意思 Error code meaning	错误码产生 Various possible for the error	解决措施 Solution
ER-01	找不到针位 Not find needle position	1: 手轮和电机轴不啮合 2: 手轮上轴螺母松动 3: 手轮螺母弹性架松 4: 九针端子头接触不良 5: 电机轴润滑, 更换电机 1: Hand wheel and motor 2: Hand wheel magnet off 3: Hand wheel magnet polarity reversal 4: Nine-pin terminal head Poor contact 5: Motor hall damaged, with the change motor	1: 检查电机信号线有无松动 2: 更换电机 3: 检查电机轴信号线连接良好 4: 更换电机 1: check whether the motor signal line is loose 2: replace the wheel 3: replace the motor
ER-02	脚踏板信号错误 Foot controller signal error	1: 脚踏板接线错误 2: 脚踏板损坏 3: 脚踏板线断开 4: 脚踏板线短路 1: Not plugged foot controller into control box 2: foot controller inserted upside 3: foot controller box line broken 4: foot controller damage	1: 检查脚踏板信号线 2: 更换脚踏板 3: 更换脚踏板 4: change the foot controller signal line 2: change the foot controller 3: replace the foot controller
ER-03	电机相位信号错误 Motor phase signal error	1: 九针插头接触不良 2: 电机轴润滑不到位 3: 电机轴润滑 4: 电机轴润滑 5: 电机轴润滑 6: 电机轴润滑 7: 电机轴润滑 8: 电机轴润滑 9: 电机轴润滑 10: 电机轴润滑 11: 电机轴润滑 12: 电机轴润滑 13: 电机轴润滑 14: 电机轴润滑 15: 电机轴润滑 16: 电机轴润滑 17: 电机轴润滑 18: 电机轴润滑 19: 电机轴润滑 20: 电机轴润滑 21: 电机轴润滑 22: 电机轴润滑 23: 电机轴润滑 24: 电机轴润滑 25: 电机轴润滑 26: 电机轴润滑 27: 电机轴润滑 28: 电机轴润滑 29: 电机轴润滑 30: 电机轴润滑 31: 电机轴润滑 32: 电机轴润滑 33: 电机轴润滑 34: 电机轴润滑 35: 电机轴润滑 36: 电机轴润滑 37: 电机轴润滑 38: 电机轴润滑 39: 电机轴润滑 40: 电机轴润滑 41: 电机轴润滑 42: 电机轴润滑 43: 电机轴润滑 44: 电机轴润滑 45: 电机轴润滑 46: 电机轴润滑 47: 电机轴润滑 48: 电机轴润滑 49: 电机轴润滑 50: 电机轴润滑 51: 电机轴润滑 52: 电机轴润滑 53: 电机轴润滑 54: 电机轴润滑 55: 电机轴润滑 56: 电机轴润滑 57: 电机轴润滑 58: 电机轴润滑 59: 电机轴润滑 60: 电机轴润滑 61: 电机轴润滑 62: 电机轴润滑 63: 电机轴润滑 64: 电机轴润滑 65: 电机轴润滑 66: 电机轴润滑 67: 电机轴润滑 68: 电机轴润滑 69: 电机轴润滑 70: 电机轴润滑 71: 电机轴润滑 72: 电机轴润滑 73: 电机轴润滑 74: 电机轴润滑 75: 电机轴润滑 76: 电机轴润滑 77: 电机轴润滑 78: 电机轴润滑 79: 电机轴润滑 80: 电机轴润滑 81: 电机轴润滑 82: 电机轴润滑 83: 电机轴润滑 84: 电机轴润滑 85: 电机轴润滑 86: 电机轴润滑 87: 电机轴润滑 88: 电机轴润滑 89: 电机轴润滑 90: 电机轴润滑 91: 电机轴润滑 92: 电机轴润滑 93: 电机轴润滑 94: 电机轴润滑 95: 电机轴润滑 96: 电机轴润滑 97: 电机轴润滑 98: 电机轴润滑 99: 电机轴润滑 100: 电机轴润滑 101: 电机轴润滑 102: 电机轴润滑 103: 电机轴润滑 104: 电机轴润滑 105: 电机轴润滑 106: 电机轴润滑 107: 电机轴润滑 108: 电机轴润滑 109: 电机轴润滑 110: 电机轴润滑 111: 电机轴润滑 112: 电机轴润滑 113: 电机轴润滑 114: 电机轴润滑 115: 电机轴润滑 116: 电机轴润滑 117: 电机轴润滑 118: 电机轴润滑 119: 电机轴润滑 120: 电机轴润滑 121: 电机轴润滑 122: 电机轴润滑 123: 电机轴润滑 124: 电机轴润滑 125: 电机轴润滑 126: 电机轴润滑 127: 电机轴润滑 128: 电机轴润滑 129: 电机轴润滑 130: 电机轴润滑 131: 电机轴润滑 132: 电机轴润滑 133: 电机轴润滑 134: 电机轴润滑 135: 电机轴润滑 136: 电机轴润滑 137: 电机轴润滑 138: 电机轴润滑 139: 电机轴润滑 140: 电机轴润滑 141: 电机轴润滑 142: 电机轴润滑 143: 电机轴润滑 144: 电机轴润滑 145: 电机轴润滑 146: 电机轴润滑 147: 电机轴润滑 148: 电机轴润滑 149: 电机轴润滑 150: 电机轴润滑 151: 电机轴润滑 152: 电机轴润滑 153: 电机轴润滑 154: 电机轴润滑 155: 电机轴润滑 156: 电机轴润滑 157: 电机轴润滑 158: 电机轴润滑 159: 电机轴润滑 160: 电机轴润滑 161: 电机轴润滑 162: 电机轴润滑 163: 电机轴润滑 164: 电机轴润滑 165: 电机轴润滑 166: 电机轴润滑 167: 电机轴润滑 168: 电机轴润滑 169: 电机轴润滑 170: 电机轴润滑 171: 电机轴润滑 172: 电机轴润滑 173: 电机轴润滑 174: 电机轴润滑 175: 电机轴润滑 176: 电机轴润滑 177: 电机轴润滑 178: 电机轴润滑 179: 电机轴润滑 180: 电机轴润滑 181: 电机轴润滑 182: 电机轴润滑 183: 电机轴润滑 184: 电机轴润滑 185: 电机轴润滑 186: 电机轴润滑 187: 电机轴润滑 188: 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